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=> s fusion (p) protein (p) steroid (p) receptor (p) thyroid

L1 69 FUSION (P) PROTEIN (P) STEROID (P) RECEPTOR (P) THYROID

=> s fusion (s) protein (s) steroid (s) receptor (s) thyroid

4 FILES SEARCHED...

L2 51 FUSION (S) PROTEIN (S) STEROID (S) RECEPTOR (S) THYROID

=> s fusion (s) protein (s) steroid (s) receptor (s) thyroid (s) hormone

4 FILES SEARCHED...

L3 35 FUSION (S) PROTEIN (S) STEROID (S) RECEPTOR (S) THYROID (S)  
HORMONE

=> dup rem l3

PROCESSING COMPLETED FOR L3

L4 16 DUP REM L3 (19 DUPLICATES REMOVED)

=> d l4 total ibib kwic

L4 ANSWER 1 OF 16 USPATFULL

ACCESSION NUMBER: 2000:9723 USPATFULL

TITLE: Unique nucleotide and amino acid sequence and uses thereof

INVENTOR(S): Summers, Max D., Bryan, TX, United States  
Braunagel, Sharon C., Bryan, TX, United States  
Hong, Tao, Bryan, TX, United States

PATENT ASSIGNEE(S): The Texas A & M University System, College Station, TX,

## United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6017734		20000125
APPLICATION INFO.:	US 1997-792832		19970130 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1996-678435, filed on 3 Jul 1996, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-955	19950707 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Elliott, George C.	
ASSISTANT EXAMINER:	Schwartzman, Robert	
LEGAL REPRESENTATIVE:	Arnold, White & Durkee	
NUMBER OF CLAIMS:	56	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	47 Drawing Figure(s); 24 Drawing Page(s)	
LINE COUNT:	7846	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
DETD . . . Nakhai et al. 1991		

choriogonadotropin .beta.-subunit Chen et al. 1991  
 choriogonadotropin .beta.-subunit Chen and Bahl 1991  
 descarboxyl-terminal peptide  
 chorionic gonadotropin **hormone** Nakhai et al. 1991  
 precursor  
 chorionic gonadotropin **hormone** Hasnain et al. 1994  
 (b-subunit)  
 chorionic gonadotropin **hormone** Nakhai et al. 1992  
 b subunit  
 complement C1r Sass et al. 19??  
 complement C1r proenzyme Gal et al. 1989  
 complement **protein** C9 Tomlinson et al. 1993  
 corticosteroid binding globulin Ghose Dastidar et al. 1991  
 c-myc **protein** Miyamoto et al. 1985  
 complement **protein** C9 Tomlinson et al. 1993  
 corticosteroid binding globulin Ghose-Dastidar et al. 1991  
 (hCBG)  
 creatine kinase B (B-CK) de Kok et al. . . . 1994  
 phosphoprotein  
 cytomegalovirus IE1, IE1 exon 4 Davrinche et al. 1993  
 cytosolic phospholipase A.sub.2 Abdullah et al. 1995  
 D4 dopamine **receptor** Mills et al. 1993  
 DNA ligase I Gallina et al. 1995  
 DNA polymerase a subunit Copeland and Wang 1991  
 DNA polymerase d catalytic subunit Zhou et al. 1996  
 DNA topoisomerase 1 Zhelkovsky & Moore 1994  
 dopamine D.sub.2 **receptor** Javitch et al. 1994  
 EGF **receptor** Greenfield et al. 1988  
 EGF **receptor**-tyrosine kinase domain Wedegaertner et al. 1989  
 endothelial nitric-oxide synthase Chen et al. 1996  
 epidermal growth factor **receptor** Waterfield & Greenfield 1991  
 epidermal-growth-factor **receptor** McGlynn et al. 1992  
**protein**-tyrosine kinase  
 epidermal growth factors IX and XIIa Astermark et al. 1994  
 erythrocyte anion exchanger Dale et al. 1996  
 erythropoietin Quelle et al. 1992  
 estrogen **receptor** Beekman et al. 1994  
 factor VIII - B domain deleted Webb et al. 1993  
 fibroblast growth factor **receptor** Sisk et al. 1992  
 subtype ligand binding domain  
 follicle-stimulating **hormone receptor** Christophe et al.  
 1993  
 furin Bravo et al. 1994

GABA.sub.A **receptor** a1 subunits Birnir et al. 1995  
 GABA.sub.A **receptor** b1 subunits Birnir et al. 1995  
 ga773 - 2 antigen Strassburg et al. 1992  
 GMP synthetase Lou et al. 1995  
 glucocerebrosidase Martin et al. 1988  
 glucocorticoid **receptor** Srinivasan et al. 1990  
 glutamic acid decarboxylase Mauch et al. 1993  
 glycine **receptor** a1 Morr et al. 1995  
 group b rotavirus ADRV, VP4 Mackow et al. 1993  
 group II Phospholipase A.sub.2 Tremblay et al. 1993  
 growth **hormone** Sumathy et al. 1996  
 growth **hormone receptor** - Ota et al. 1991  
 extracellular domain  
 5-HT.sub.1A **receptor** Mulheron et al. 1994  
 hst-1 transforming **protein** Miyagawa et al. 1988  
 heart (R)-3-hydroxybutyrate Green et al. 1996  
 dehydrogenase  
 hematopoietic glycopeptide Quelle et al. 1992  
 erythropoietin  
 hemopexin Satoh et al. 1994  
 heparin cofactor II Ciaccia et al. 1995  
 hepatitis b virus X **protein** Klein et al. 1992  
 hepatocyte growth factor Yee et al. 1993  
 hepatocyte growth factor Lee et al. 1993  
 high-affinity IgE **receptor**-a chain Yagi et al. 1994  
 17b-hydroxysteroid dehydrogenase Breton et al. 1994  
 5-hydroxytryptamine.sub.1A Butkerait et al. 1995  
 5-hydroxytryptamine **receptors** Parker et al. 1994  
 (5-HT.sub.1A, 5-HT.sub.1Da, 5-HT.sub.1Db, 5-HT.sub.1E)  
 IgA Carayannopoulos et al. 1994  
 IL2 **receptor** a & b chains Lindqvist et al. 1993  
 immunodeficiency virus-type 1 gag Chazal et al. 1994  
 precursor  
 immunodeficiency virus-1 gp41 Lu et al. 1993  
 immunodeficiency virus-1 gp120 Yeh et al. 1993  
 insulin holoreceptor Paul et al. 1990  
 insulin **receptor** substrate-1 Siemeister et al. 1995  
 insulin **receptor** b-subunit Herrera et al. 1988  
 insulin **receptor** b subunit Li et al. 1992  
 transmembrane/cytoplasmic domain  
 insulin **receptor** ectodomain Sissom et al. 1989; 1991  
 insulin **receptor protein**-tyrosine Ellis et al. 1988  
 kinase domain  
 insulin **receptor** cytoplasmic domain Herrera et al. 1988  
 of b subunit  
 insulin **receptor protein** tyrosine- Ellis and Levine 1991  
 kinase-cytoplasmic domain  
 insulin-like growth factor II Congote and Li, 1994  
 insulin-like growth factor II Marumoto. . . glycoforms Ogonah et al. 1995  
 interleukin 2 Smith et al. 1985  
 interleukin 2 glycoprotein variants Grabenhorst et al. 1993  
 interleukin-2 **receptor** gamma chain Raivio et al. 1995  
 interleukin 5 Brown et al. 1995  
 interleukin 6 Matsuura et al. 1991  
 interleukin-6 **receptor** Weiergraber et al. 1995  
 intrinsic factor Gordon et al. 1992  
 iron regulatory factor Emery-Goodman et al. 1993  
 isoforms (neuronal, inducible, . . . Ku autoantigen Allaway et al. 1990  
 lecithin-cholesterol acyltransferase Chawla & Owen 1995  
 Leukotriene A.sub.4 hydrolase Gierse et al. 1993  
 link **protein** Grover & Roughley 1994  
 liver carboxylesterase Kroetz et al. 1993  
 lymphocytic activation gene (LAG-1) Baizleras et al. 1990  
 lysyl hydroxylase. . . al. 1996  
 lysosomal b-galactosidase Itoh et al. 1991  
 5'lipoxigenase Dunk et al. 1989

m1 muscarinic acetylcholine Haga et al. 1996  
**receptors**  
 m2 muscarinic cholinergic **receptor** Debburman et al. 1995  
 m3 (hm3) muscarinic cholinergic Debburman et al. 1995  
**receptors**  
 MHC class I HLA-b27 antigen Levy and Kvist 1990  
 MHC class II DR4a, DR4b, extra- Scheerle et al. 1992  
 cellular. . . colony stimulating factor Qiu et al. 1995  
 matrilysin Lopez de Turiso et al. 1996  
 metallothionein-II Schmiel et al. 1985  
 mineralocorticosteriod **receptor** Binart et al. 1991  
 monocyte chemoattractant **protein**-1 Ueda et al. 1994  
 Ishii et al. 1995  
 multidrug resistance 1 Germann et al. 1990  
 multidrug resistance P-glycoprotein Rao et al. 1994  
 muscarine **receptor** m2 Kameyama et al. 1994  
 myeloperoxidase Taylor et al. 1992  
 myogenic factors myf4, myf5 Braun et al. 1991  
 N-formyl peptide **receptor** Quehenberger et al. 1992  
 Na.sup.+ /H.sup.+ antiporter Fafournoux et al. 1991  
 NADPH-P450 oxidoreductase Tamura et al. 1992  
 nerve growth factor Buxser et al. 1991  
 nerve growth factor **receptor** Vissavajjhala et al. 1990  
 neutrophil NADPH oxidase factors Leto et al. 1991  
 p47-[phox], p67[phox]  
 nuclear **hormone receptor** H-2R11BP Marks et al. 1992  
 nucleolar **protein** p120 Ren et al. 1996  
 oxytocin **receptor** Gimpl et al. 1995  
 p53 Patterson et al. 1996  
 P450 2E1 Patten & Koch 1995  
 pancreatic lipase Thirstrup et al. 1993  
 pancreatic procolipase Lowe 1994  
 papillomavirus type 11 E1, E2 Bream et al. 1993  
 papillomavirus type 11-L1 **protein** Rose et al. 1993  
 papillomavirus type 16 E2 Sanders et al. 1995  
 papillomavirus type 16 E2 **protein** Sanders et al. 1995  
 papillomavirus type 16 L1, L2 Xi and Banks, 1991  
 papillomavirus type 45 L1 major Touze et al. 1996  
 capsid **protein**  
 parainfluenza virus type 3, 7, HN, Lehman et al. 1993  
 7HN  
 parathyroid **hormone** Mathavan et al. 1995  
 parvovirus B19 vp1, vp2 Cubie et al. 1993  
 phospholipase A.sub.2 Abdullah et al. 1995  
 placental aromatase. . . pre-pro gastrin releasing peptide  
 Lebacqz-verheyden et al. 1988  
 pro-al(III) chains Tomita et al. 1995  
 proapoA-I Sorci-Thomas et al. 1996  
 progesterone **receptor** (A form) Elliston et al. 1992  
 progesterone **receptors** A&B forms Christensen et al. 1991  
 prolyl 4-hydroxylase a, b subunits Vuori et al. 1992  
 prolyl 4-hydroxylase a subunit with. . . George et al. 1996  
 prostaglandin G/H synthase 1 Barnett et al. 1994  
 prostaglandin G/H synthase 2 Barnett et al. 1994  
**protein** disulphide isomerase Vuori et al. 1992  
**protein** kinase c-d Rankl et al. 1994  
**protein** kinase Cm Dieterich et al. 1996  
 pro-urokinase Gao and Hu 1994  
 rab 6 Yang et al. 1992  
 rap1A Quilliam et. . . 1996  
 respiratory syncytial virus F and G Wathen et al. 1989  
 glycoproteins  
 retinoblastoma ppl10.sup.RB Wang et al. 1990  
 retinoic acid **receptor** al Quick et al. 1994  
 retinoic acid **receptor** - g1 Reddy et al. 1992  
 ssDNA-binding **protein** Stigger et al. 1994

sex **steroid-binding protein** Sui et al. 1995  
 (hSBP/hABP, hSHBG)  
 soluble human insulin **receptor** - Sissom and Ellis 1992  
 ectodomain  
 soluble human insulin **receptor** Ahn et al. 1993  
 tyrosine kinase  
 Sos1 **protein** Frech et al. 1995  
**steroid** 5a-reductase Iehle et al. 1993  
 synthetic basic fibroblast growth Hills & Crane-Robinson 1995  
 factor  
 TII (CD2) t-lymphocyte surface Richardson et. . . al. 1988  
 glycoprotein  
 TII (CD2) Alcover et al. 1988  
 T-cell leukemia virus type I p40 Nyunoya et al. 1988  
 T-cell **protein** tyrosine kinase Lehr et al. 1996  
 T-cell **protein**-tyrosine-phosphatase Zander et al. 1991  
 T-lymphotropic virus type 1 envelope Yamashita et al. 1992  
**protein**  
 terminal transferase Chang et al. 1988  
 terminal deoxynucleotidyl transferase di Primio et al. 1992  
 thrombomodulin Marumoto et al. 1993  
 thromboxane synthase Yokoyama et al. 1993  
**thyroid hormone** B.sub.1 **receptor** Putlitz et al.  
 1991  
**thyroid** peroxidase Kendler et al. 1993  
 thyrotropin **receptor** extracellular Seetharamaiah et al. 1993  
 domain  
 thyrotropin **hormone receptor**- Huang et al. 1993  
 extracellular domain  
 tissue inhibitor of metallo- Gomez et al. 1994  
 proteinases-1  
 tissue plasminogen activator Jarvis et. . . cell adhesion molecule-1  
 Stoltenborg et al. 1994  
 (VCAM1)  
 vascular endothelial growth factor Fiebich et al. 1993  
 VEGF.sub.121, VEGF.sub.165  
 vitamin D **receptor** Nakajima et al. 1993  
 Vitronectin Zhao and Sane, 1993  
 Y1 neuropeptide Y **receptor** Munoz et al. 1995  
 yoked chorionic gonadotropin Narayan et al. 1995  
 Hyalophora cecropia pupae attacin Gunn et al. 1990  
 immunodeficiency. . . et al. 1994  
 human gag and gag-pol Hughes et al. 1993  
 human gag precursors Royer et al. 1992  
 human gag-related **proteins** Madisen et al. 1987  
 human gp120, gp160 Murphy et al. 1990  
 human gp160, envelope PB1 Dolin et al. 1991  
 human type 1 envelope glycoproteins Bristow et al. 1994  
 human type 1 integrase **protein** Rodner et al. 1993  
 human type 1 matrix **protein** Chazal et al. 1995  
 human P55 gag Gheysen et al. 1989  
 human p55 gag and protease Overton et al. 1989  
 . . . gene, reverse transcriptase Manns and Grosse 1991  
 and integrase  
 human type 1 reverse transcriptase Kawa et al. 1993  
 human tat **protein** Jeang et al. 1988  
 human type 1 gag precursor Hong and Boulanger 1993  
 human Type 1 Nef Matsuura et al.. . . haemagglutinin epitope McLinden et  
 al. 1992  
 neuraminidase Weyer & Possee, 1991  
 Price et al. 1989  
 Mather et al. 1992  
 polymerase **proteins** St. Angelo et al. 1987  
 RNA polymerase Kobayashi et al.  
 RNA polymerase - PB1; PB2; PA Kobayashi et al. 1992  
 . . . M2 Schroeder et al. 1994

virus recombinant hemagglutinin Treanor et al. 1996  
 insect:  
 g-aminobutyric acid (GABA) Shotkoski et al. 1996  
**receptor**  
 Bombyx mori prothoracicotropic O'Reilly et al. 1995  
**hormone**  
 ecdysteroid UDP-glucosyl transferase O'Reilly 1995  
 fungal protease inhibitor F(FPI-F) Pham et al. 1996  
 juvenile **hormone** esterase Bonning et al. 1995  
 synthetic pheromone biosynthesis Vakharia et al. 1995  
 activating neuropeptide  
 transferrin Winzerling et al. 1996  
 invertebrate GABA.sub.A **receptor** Smith et al. 1995  
 b-subunit  
 JC virus T antigen Bollag et al. 1996  
 Japanese encephalitis virus:  
 envelope glycoprotein E Aira 1987  
 glycoprotein NS1 Flamand et al. 1995  
 nonstructural **protein** NS1 Flamand et al. 1992  
 viral structural **proteins** Matsuura et al. 1989  
 Japanese type hepatitis C virus:  
 p70(NS3) Hirowatari et al. 1995  
 p4(NS4A) Hirowatari et al. 1995  
 p27(NS4B) Hirowatari et al. 1995  
 p58/56(NS5A) Hirowatari et al. 1995  
 p66(NS5B) Hirowatari et al. 1995  
 jellyfish green fluorescent **protein** Eriksson et al. 1996  
 Johnson grass mosaic virus coat Edwards et al. 1994  
**protein**  
 juvenile **hormone** esterase Booth et al. 1992  
 LaCrosse virus:  
 G1 Pekosz et al. 1995  
 G2 Pekosz et al. 1995  
 Lassa virus N **protein** Barber et al. 1990  
 Lassa virus glycoprotein Hummel et al. 1992  
 Leishmania virus - capsid Cadd and Patterson 1994  
 Leishmania. . . locust ion transport peptide Meredith et al. 1996  
 Louping ill virus - envelope, core and Shiu et al. 1992  
 membrane **proteins**  
 luciferase-streptavidin **fusion protein** Karp et al. 1996  
 lutropin/choriogonadotropin **receptor** Narayan et al. 1996  
 lymphocyte-specific **protein**-tyrosyl Watts et al. 1992  
 kinase p56.sup.lck  
 lymphocytic choriomeningitis virus Min and Bishop 1991  
 nucleocapsid **protein**  
 lymphocytic choriomeningitis virus Matsuura et al. 1986  
 nucleoprotein and glycoprotein  
 precursor  
 lymphoid-cell **protein** tyrosine kinase Ramen et al. 1991  
 p56.sup.lck  
 maize:  
 ActPase Kunze et al. 1995  
 auxin-binding **protein** Henderson et al. 1995  
 mitochondrial **protein** URF13 Korth and Levings 1993  
 transposable element Ac **protein** Hauser et al. 1988  
 Manduca sexta diuretic **hormone** Maeda 1989  
 Manduca sexta juvenile **hormone** Touhara et al. 1993  
 binding **protein**  
 Marburg virus surface **protein** Becker et al. 1996  
 Marek's disease virus:  
 88; 110; 49; 58 Niikura et al. 1992  
 A antigen Niikura et al. 1991  
 B antigen Niikura et al. 1992  
 disease virus type 1 (mDV1)-specific Urakawa et al. 1994  
**protein** p40  
 virus glycoprotein D Ono et al. 1995

measles virus:  
 AIK-C strain hemagglutinin and **fusion** Takehara et al. 1992  
 glycoproteins  
 hemagglutinin Vialard et al. 1990  
 N **protein** Fooks et al. 1993  
 nucleoprotein Hummel et al. 1992  
 melanocortin 1 **receptors** Schioth et al. 1996  
 mink enteritis parvovirus VP-2 Christensen et al. 1994  
 minute virus of mice NS-1 Wilson et al. . . . Mokola virus glycoprotein  
 Tordo et al. 1993

mouse:  
 CD95/AP01/Fas ligand Mariani et al. 1996  
 c-fos Corvello et al. 1994  
 cFos **protein** Corvello et al. 1995  
 focal adhesion kinase Withers et al. 1996  
 glutamate **receptor** subunits  $\alpha 1$ ,  $\alpha 2$  Kawamoto et al. 1993  
 growth **hormone** Thordarson et al. 1996  
 immunophilin FKBP-52 Alnemri et al. 1993  
 interleukin-3 Hogeland et al. 1992  
 Knepper et al. 1992  
 perforin. . . al. 1994  
 multifunctional mammalian Momoeda et al. 1995  
 transcription factor, YY1

murine:  
 $\alpha 1$ -subunit of AMPA-selective Kawamoto et al. 1993  
 glutamate **receptor** channel

L4 ANSWER 2 OF 16

MEDLINE

DUPLICATE 1

ACCESSION NUMBER: 2000065645 MEDLINE

DOCUMENT NUMBER: 20065645 PubMed ID: 10598586

TITLE: A fusion protein of the estrogen receptor (ER) and nuclear receptor corepressor (NCoR) strongly inhibits

estrogen-dependent responses in breast cancer cells.

AUTHOR: Chien P Y; Ito M; Park Y; Tagami T; Gehm B D; Jameson J L

CORPORATE SOURCE: Division of Endocrinology, Metabolism, and Molecular Medicine, Northwestern University Medical School, Chicago, Illinois 60611, USA.

CONTRACT NUMBER: DK-42144 (NIDDK)

SOURCE: MOLECULAR ENDOCRINOLOGY, (1999 Dec) 13 (12) 2122-36.

Journal code: NGZ; 8801431. ISSN: 0888-8809.

PUB. COUNTRY: United States

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200001

ENTRY DATE: Entered STN: 20000124

Last Updated on STN: 20000124

Entered Medline: 20000110

AB Nuclear **receptor** corepressor (NCoR) mediates repression (silencing) of basal gene transcription by nuclear **receptors** for **thyroid hormone** and retinoic acid. The goal of this study was to create novel estrogen **receptor** (ER) mutants by fusing transferable repressor domains from the N-terminal region of NCoR to a functional ER fragment. Three chimeric NCoR-ER **proteins** were created and shown to lack transcriptional activity. These **fusion proteins** silenced basal transcription of the ERE2-tk-Luc reporter gene and inhibited the activity of co-transfected wild-type ER (wtER), indicating that they possess dominant negative activity. One of the **fusion proteins** (CDE-RD1), containing the ER DNA-binding and ligand-binding domains linked to the NCoR repressor domain (RD1), was selected for detailed examination. Its **hormone** affinity, intracellular localization, and level of expression in transfected cells were similar to wtER, and it bound to the estrogen. . . response element (ERE) DNA in gel shift assays. Glutathione-S-transferase pull-down assays showed that CDE-RD1 retains

the

ability to bind to **steroid receptor** coactivator-1.  
 Introduction of a DNA-binding domain mutation into the CDE-RD1  
**fusion protein** eliminated silencing and dominant  
 negative activity. Thus, the RD1 repressor domain prevents  
 transcriptional  
 activation despite the apparent ability of CDE-RD1. . . . cancer cells  
 and repressed the growth of T47D cells when delivered to the cells by a  
 retroviral vector. These ER-NCoR **fusion proteins**  
 provide a novel means for inhibiting ER-mediated cellular responses, and  
 analogous strategies could be used to create dominant negative mutants.

L4 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1998:71221 CAPLUS  
 DOCUMENT NUMBER: 128:136859  
 TITLE: Soluble ErbB receptor extracellular domain fusion  
 proteins their uses in antagonization of growth  
 factors  
 INVENTOR(S): Fizpatrick, Vincent Danial; Sliwowski, Mark;  
 Vandlen,  
 Richard L.  
 PATENT ASSIGNEE(S): Genentech, Inc., USA  
 SOURCE: PCT Int. Appl., 58 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9802540	A1	19980122	WO 1997-US11825	19970708
W:		AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		
RW:		GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG		
CA 2258721	AA	19980122	CA 1997-2258721	19970708
AU 9735962	A1	19980209	AU 1997-35962	19970708
AU 722178	B2	20000727		
EP 912734	A1	19990506	EP 1997-932526	19970708
R:		AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI		
BR 9710357	A	19990817	BR 1997-10357	19970708
JP 2000515372	T2	20001121	JP 1998-506089	19970708
PRIORITY APPLN. INFO.:			US 1996-21640	P 19960712
			US 1997-798326	A 19970210
			WO 1997-US11825	W 19970708

IT **Steroid receptors**

**Thyroid hormone receptors**

RL: BPR (Biological process); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(TR (thyroid/steroid hormone  
 receptor), fusion proteins; sol. ErbB  
 receptor extracellular domain fusion proteins  
 their uses in antagonization of growth factors)

L4 ANSWER 4 OF 16

MEDLINE

DUPLICATE 2

ACCESSION NUMBER: 1998101756 MEDLINE  
 DOCUMENT NUMBER: 98101756 PubMed ID: 9440806  
 TITLE: TLS (translocated-in-liposarcoma) is a high-affinity  
 interactor for steroid, thyroid hormone, and retinoid



receptors.  
 AUTHOR: Powers C A; Mathur M; Raaka B M; Ron D; Samuels H H  
 CORPORATE SOURCE: Division of Molecular Endocrinology, New York University  
 Medical Center 10016, USA.  
 CONTRACT NUMBER: CA-60945 (NCI)  
 DK-09211 (NIDDK)  
 DK-16636 (NIDDK)  
 +  
 SOURCE: MOLECULAR ENDOCRINOLOGY, (1998 Jan) 12 (1) 4-18.  
 Journal code: NGZ; 8801431. ISSN: 0888-8809.  
 PUB. COUNTRY: United States  
 Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199802  
 ENTRY DATE: Entered STN: 19980226  
 Last Updated on STN: 19980226  
 Entered Medline: 19980218

AB Nuclear **receptors** for **steroid hormones**, **thyroid hormone**, retinoids, and vitamin D are thought to mediate their transcriptional effects in concert with coregulator **proteins** that modulate **receptor** interactions with components of the basal transcription complex. In an effort to identify potential coregulators, **receptor fusions** with glutathione-S-transferase were used to isolate **proteins** in nuclear extracts capable of binding nuclear **hormone receptors**. Glutathione-S-transferase **fusions** with mouse retinoid X **receptor**-alpha enabled the selective isolation of a 65-kDa **protein** (p65) from nuclear extracts of rat and human cells. Binding of p65 to mouse retinoid X **receptor**-alpha was centered around the DNA-binding domain. p65 also bound regions encompassing the DNA-binding domain in estrogen, **thyroid hormone**, and glucocorticoid **receptors**. p65 was identified as TLS (translocated-in-liposarcoma), a recently identified member of the RNP family of nuclear RNA-binding **proteins** whose members are thought to function in RNA processing. The N-terminal half of TLS bound to **thyroid hormone receptor** with high affinity while the **receptor** was bound to appropriate DNA target sites. Functional studies indicated that the N-terminal half of

TLS can interact with **thyroid hormone receptor** in vivo. TLS was originally discovered as part of a **fusion protein** arising from a chromosomal translocation causing human myxoid liposarcomas. TLS contains a potent transactivation domain whose translocation-induced **fusion** with a DNA-binding **protein** (CHOP) yields a powerful transforming oncogene and transcription factor. The transactivation and RNA-binding properties of TLS and the nature of its interaction with nuclear **receptors** suggest a novel role in nuclear **receptor** function.

L4 ANSWER 5 OF 16 MEDLINE DUPLICATE 3  
 ACCESSION NUMBER: 97271687 MEDLINE  
 DOCUMENT NUMBER: 97271687 PubMed ID: 9126603  
 TITLE: One-step immunoaffinity purification of recombinant human retinoic acid receptor gamma.  
 AUTHOR: Repa J J; Berg J A; Kaiser M E; Hanson K K; Strugnell S A; Clagett-Dame M  
 CORPORATE SOURCE: Interdepartmental Graduate Program in Nutritional Sciences,  
 University of Wisconsin-Madison 53706, USA.  
 CONTRACT NUMBER: DK-14881 (NIDDK)  
 SOURCE: PROTEIN EXPRESSION AND PURIFICATION, (1997 Apr) 9 (3) 319-30.  
 Journal code: BJV; 9101496. ISSN: 1046-5928.  
 PUB. COUNTRY: United States  
 Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199705  
ENTRY DATE: Entered STN: 19970602  
Last Updated on STN: 19970602  
Entered Medline: 19970519

AB Retinoic acid **receptors** (RAR) are members of the **steroid** /**thyroid hormone receptor** superfamily and serve as ligand-activated transcription factors. In order to facilitate studies of **receptor protein**, we have generated a monoclonal antibody to the human RAR gamma, and have developed a procedure to purify the full-length **receptor** expressed in insect cells. The monoclonal antibody (A10) was developed using as antigen a carboxy-terminal fragment of the human RAR gamma expressed as a bacterial **fusion protein**. The A10 monoclonal antibody binds to both native and denatured forms of the human RAR gamma. This antibody was immobilized on a resin and used to purify full-length, baculovirus-expressed human RAR gamma to near homogeneity. The immunoaffinity-purified **receptor** is > 90-95% pure as revealed by silver-stained gels. The identity of the single **protein** band as RAR gamma was verified by immunoblotting using a polyclonal antibody to an epitope distinct from that recognized by. . . retinoic acid response element was also studied. Response element binding by RAR gamma required the presence of the retinoid X **receptor**, but did not require the presence of additional **proteins**. Human RAR gamma **protein** purified in this fashion will be useful in future structural and functional studies.

L4 ANSWER 6 OF 16 MEDLINE DUPLICATE 4  
ACCESSION NUMBER: 1998057341 MEDLINE  
DOCUMENT NUMBER: 98057341 PubMed ID: 9396634  
TITLE: Transfection of TTF-1 gene induces thyroglobulin gene expression in undifferentiated FRT cells.  
AUTHOR: Mascia A; De Felice M; Lipardi C; Gentile R; Cali G; Zannini M; Di Lauro R; Nitsch L  
CORPORATE SOURCE: Centro di Endocrinologia ed Oncologia Sperimentale del CNR - Dipartimento di Biologia e Patologia Cellulare e Molecolare, Universita degli Studi di Napoli Federico II, Naples, Italy.  
SOURCE: BIOCHIMICA ET BIOPHYSICA ACTA, (1997 Nov 1) 1354 (2) 171-81.  
Journal code: AOW; 0217513. ISSN: 0006-3002.  
PUB. COUNTRY: Netherlands  
Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199801  
ENTRY DATE: Entered STN: 19980122  
Last Updated on STN: 19980122  
Entered Medline: 19980105

AB The thyroglobulin gene, the substrate for **thyroid hormone** biosynthesis, is not expressed in the FRT cell line, which, even though it manifests the polarised epithelial phenotype, does not express any of the **thyroid** functional properties. Two transcription factors, TTF-1 and Pax-8, have been implicated in **thyroid** specific expression of the thyroglobulin gene. FRT cells contain Pax-8 but they lack TTF-1. In this paper, we show that. . . expression vectors in FRT cells results in activation of thyroglobulin gene expression. If the expression vector encoded for TTF-1-ER, a **fusion** gene coding for the entire TTF-1 **protein** fused to the **hormone**-binding domain of the **steroid receptor**, under the control of the RSV promoter, thyroglobulin gene expression was controlled by estrogen. These data provide a direct demonstration that TTF-1 activates the chromosomal thyroglobulin promoter.

Since transfection of TTF-1 expression vectors in non-**thyroid** cell types did not result in thyroglobulin gene expression, it is suggested that Pax-8, in addition, perhaps, to a specific cellular environment, might be required for **thyroid** specific expression of the thyroglobulin gene.

L4 ANSWER 7 OF 16 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1996:388480 CAPLUS

DOCUMENT NUMBER: 125:105138

TITLE: A novel steroid hormone receptor and compounds that activate it for potentiation of G-protein-coupled receptors

INVENTOR(S): Friedman, Eitan; Holloway, M. Katharine; Rodan, Gideon

PATENT ASSIGNEE(S): A.; Schmidt, Azriel; Vogel, Robert L. Merck and Co., Inc., USA; Medical College of Pennsylvania

SOURCE: PCT Int. Appl., 62 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9613257	A1	19960509	WO 1995-US13931	19951024
W:	AL, AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KG, KR, KZ, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TT, UA, US, UZ			
RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
US 5607967	A	19970304	US 1994-330518	19941027
CA 2200886	AA	19960509	CA 1995-2200886	19951024
AU 9539700	A1	19960523	AU 1995-39700	19951024
AU 705987	B2	19990603		
EP 786995	A1	19970806	EP 1995-937658	19951024
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE			
JP 10509139	T2	19980908	JP 1995-514767	19951024
PRIORITY APPLN. INFO.:			US 1994-330518	19941027
			WO 1995-US13931	19951024

IT **Thyroid hormone receptors**

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(fusion products with **NER receptor**, for identification of **NER ligands**; novel **steroid hormone receptor** and compds. that activate it for potentiation of **G-protein-coupled receptors**)

IT **Receptors**

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(**thyroid hormone**, fusion products with **NER receptor**, for identification of **NER ligands**; novel **steroid hormone receptor** and compds. that activate it for potentiation of **G-protein-coupled receptors**)

L4 ANSWER 8 OF 16 USPATFULL

ACCESSION NUMBER: 96:108853 USPATFULL

TITLE: Receptor transcription-repression activity compositions

and methods

INVENTOR(S): Evans, Ronald M., La Jolla, CA, United States  
Hollenberg, Stanley M., Seattle, WA, United States  
Oro, Anthony E., San Diego, CA, United States

PATENT ASSIGNEE(S): The Salk Institute for Biological Studies, La Jolla, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5578483		19961126
APPLICATION INFO.:	US 1991-691043		19910621 (7)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1988-289561, filed on 23 Dec 1988, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wax, Robert A.		
ASSISTANT EXAMINER:	Carlson, K. Cochran		
LEGAL REPRESENTATIVE:	Pretty, Schroeder, Brueggemann & Clark, Reiter, Stephen		

E., Ramos, Robert T.  
NUMBER OF CLAIMS: 8  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 5 Drawing Figure(s); 4 Drawing Page(s)  
LINE COUNT: 1064

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DRWD FIG. 4 represents the results of experiments on trans-repression and trans-activation activities of carboxy-terminal mutants of hGR. Such mutants include **fusion proteins**, with the carboxy-terminus of the wild-type hGR (by which is intended the part of the primary sequence of the **receptor** from amino acid 487 and higher, i.e., the part, including the ligand-binding domain, carboxy-terminal of the DNA-binding domain) replaced by. . . for FIGS. 2 and 3, except that the RSV plasmid used in controls 1 and 2 in place of the **receptor**- or **receptor**-analog-expressing plasmid had the **thyroid hormone receptor**-encoding cDNA inserted in the anti-sense orientation downstream of the RSV promoter rather than the beta-galactosidase-encoding DNA in the sense orientation. . . GGM consists of amino acids 1-489 of hGR as the N-terminal part and amino acids 671-984 of hMR (human mineralocorticoid **receptor**) as the C-terminal part. Mutant GGM was made from a cDNA constructed by first introducing an additional

XhoI site into. . . XhoI site of the hGR-encoding sequence. With the wild-type hGR, control 1, and the three mutants other than GGM, the **steroid** used was dexamethasone. With the mutant with beta-gal at the carboxy-terminus, normalization for transfection efficiency was based on data from. . . described for FIG. 1 supra, in which beta-galactosidase is expressed from the RSV promoter. With GGM and Control 2, the **steroid** used was aldosterone. Control 2 was the same as Control 1 except for the substitution of aldosterone for dexamethasone.

L4 ANSWER 9 OF 16 USPATFULL

ACCESSION NUMBER: 95:49945 USPATFULL  
TITLE: Heterovesicular liposomes  
INVENTOR(S): Kim, Sinil, Solana Beach, CA, United States  
PATENT ASSIGNEE(S): DepoTech Corporation, La Jolla, CA, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5422120		19950606
APPLICATION INFO.:	US 1993-78701		19930616 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1988-196590, filed on 30 May 1988, now abandoned which is a continuation-in-part of Ser. No. US 1990-496846, filed on 21 Mar 1990, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		

PRIMARY EXAMINER: Kishore, Gollamudi S.  
 LEGAL REPRESENTATIVE: Spensley Horn Jubas & Lubitz  
 NUMBER OF CLAIMS: 46  
 EXEMPLARY CLAIM: 1  
 NUMBER OF DRAWINGS: 8 Drawing Figure(s); 1 Drawing Page(s)  
 LINE COUNT: 925  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 DETD

TABLE 1

Antiasthmatics

Antiarrhythmics  
 Tranquilizers

melairoterenol

aminophylline propanolol chlorpromazine  
 theophylline atenolol benzodiazepine  
 terbutaline verapamil butyrophenones  
 Antianginas

norepinephrine hydroxyzines  
 isosorbide dinitrate

ephedrine meproamate  
 isoproterenol **Hormones** phenothiazines  
 thyroxine thioxanthenes  
 adrenalin corticosteroids

**Steroids**

Cardiac glycosides

testosterone  
 preunisone  
 digitalis estrogen triamcinolone  
 digitoxin progesterone  
 hydrocortisone  
 lanatoside C mineralocorticoid  
 dexamethasone  
 digoxin Antidiabetics  
 betamethasone

Antihypertensives

Diabenese preunisolone  
 apresoline insulin Antihistamines  
 atenolol Antineoplastics  
 pyribenzamine  
 captopril azathioprine  
 chlorpheniramine

reserpine. . . the treatment of allergies  
 influenza

respiratory syncytial virus

HIV vaccine

Hemophilus influenza vaccines

Hepatitis A,B,C vaccines

mumps

rubella

measles

tetanus

malaria vaccines

herpes

cancer vaccines

Anti-leu-3a vaccine

Monoclonal Antibodies (human, mouse other species-derived and/or  
 recombinant

and/or **fusions** and/or fragments thereof)

OKT3

OKT4

HA-IA

Anti-Carcino-Embryonic Antigen Antibodies

Anti-Ganglioside Antibodies: Anti GD2, Anti GM2, Anti GD3, Anti GM3

Urinary Tract-Associated Antigen-related antibodies

Anti-Il-2 **Receptor**

Chimeric Anti-Leu-2  
Anti-IL-2 **receptor**  
Anti-Leu-2  
Chimeric Anti-Leu-3a  
Chimeric L6  
MAb-L6  
Radiolabeled L6  
Centorex  
Centoxin  
Panorex  
Anti-LPS  
Immunotoxin  
Anti-tumor necrosis factor  
Anti-pseudomonas  
Anti-tumor necrosis factor  
OncoRad 103  
OncoScint CR103  
OncoScint OV103  
OncoScint PR356  
OncoTher 130  
KS 1/4-DAVLB  
ADCC agent  
Murine monoclonal antibodies to human B-cell lymphomas. . . isooctyl  
ester),  
2,4,5-T amine (2,4,5-trichlorophenoxyacetic acid trimethylamine)  
other triazine herbicides  
other chloroacetamide herbicides  
other phenoxyacid herbicides  
Pesticides  
Abamectin  
other avermectins  
atrazine  
lindane  
dichlorvos  
dimethoate  
warfarin  
p,p'-DDD  
p,p'-DDE  
HCH  
DMDT  
aldrin  
dieldrin  
Aldicarb  
EDB  
DCP  
DBCP  
simazine  
cyanazine  
Bacillus thuringiensis toxin  
Bacillus thuringiensis var. kurstaki  
bis(tri-n-butyltin)oxide (TBTO)  
other organochlorine pesticides  
**Proteins** and Glycoproteins  
lymphokines  
interleukins - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11.  
cytokines  
GM-CSF  
M-CSF  
G-CSF  
tumor necrosis factor  
inhibin  
tumor growth factor  
Mullerian inhibitors substance  
nerve growth factor  
fibroblast growth factor  
platelet derived growth factor

coagulation factors (e.g. VIII, IX, VII)  
 insulin  
 tissue plasminogen activator  
 histocompatibility antigen  
 oncogene products  
 myelin basic **protein**  
 collagen  
 fibronectin  
 laminin  
 other **proteins** made by recombinant DNA technology  
 erythropoietin  
 IL-3/GM-CSF **fusion proteins**  
 Monoclonal antibodies  
 Polyclonal antibodies  
 antibody-toxin **fusion proteins**  
 antibody radionuclide conjugate  
 Interferons  
 Fragments and peptide analogs, and analogs of fragment of **proteins**,  
 peptides  
 and glycoproteins.  
 Epidermal growth factor  
 CD4 **receptor** and other recombinant **receptors**  
 other **proteins** isolated from nature  
 Antidiuretic **hormone**  
 oxytocin  
 adrenocorticotropin **Hormone**  
 calcitonin  
 follicle stimulating **hormone**  
 luteinizing **hormone** releasing **hormone**  
 luteinizing **hormone**  
 gonadotrophin  
 transforming growth factors  
 streptokinase  
 Human Growth **Hormone**,  
 Somatotropins for other species, including, but not limited to:  
 1. Porcine,  
 2. Bovine,  
 3. Chicken,  
 4. Sheep,  
 5. Fish,  
 Growth **Hormone** releasing **hormones** for humans and various  
     animal species,  
 Glucagon,  
 Desmopressin,  
**Thyroid Releasing Hormone**,  
**Thyroid Hormone**,  
 Secretin,  
 Magainins,  
 Integrins,  
 Adhesion Peptides, including, but not limited to, those having the  
 Arginine-Glutamine-Aspartic Acid sequence,  
 Super Oxide Dismutase,  
 Defensins,  
 T-Cell **Receptors**,  
 Bradykinin antagonists,  
 Pentigetide,  
 Peptide T,  
 Antinflammins,  
 Major Histocompatibility (MHC) complex components and peptides  
 targeted to the MHC,  
 Protease inhibitors,  
 Lypressin,  
 Buserelin,  
 Leuprolide,  
 Nafarelin,  
 Deslorelin,

Goserelein,  
 Historelin,  
 Triptorelin,  
 LHRH antagonists,  
 HOE-2013,  
 Detirelix,  
 Org-30850,  
 ORF-21243,  
 Angiotensin Converting Enzyme inhibitor Peptide,  
 Renin inhibitory peptides,  
 Ebiratide (HOE-427),  
 DGAVP,  
 Opiate **receptor** agonists and antagonists, including, but not limited  
 to:  
 1. Enkephalins,  
 2. Endorphins,  
 E-2078,  
 DPDPE,  
 Vasoactive intestinal peptide,  
 Atrial Natriuretic Peptide,  
 Brain Natriuretic Peptide,  
 Atrial Peptide clearance inhibitors,  
 Hirudin,  
 Oncogene Inhibitors,  
 Other Colony Stimulating Factors,  
 Neurotransmitters  
     Radionuclides  
         Radio contrasts  
 Dopamine      Technetium      Gadolinium chelates  
 Epinephrine    Indium          Iohexol  
 Norepinephrine  
                 Yttrium        Ethiodol  
 acetylcholine Gallium        Iodexinol  
 Gammaamino butyric acid  
 Others  
 amino acids  
 vitamins  
 cell surface **receptor** blockers

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L4   ANSWER 10 OF 16                      MEDLINE                                      DUPLICATE 5  
 ACCESSION NUMBER:   96102134           MEDLINE  
 DOCUMENT NUMBER:    96102134          PubMed ID: 8524784  
 TITLE:               A protein that interacts with members of the nuclear  
                       hormone receptor family: identification and cDNA cloning.  
 AUTHOR:             Zeiner M; Gehring U  
 CORPORATE SOURCE:   Institut fur Biologische Chemie, Universitat Heidelberg,  
                       Germany.  
 SOURCE:             PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE  
                       UNITED STATES OF AMERICA, (1995 Dec 5) 92 (25) 11465-9.  
                       Journal code: PV3; 7505876. ISSN: 0027-8424.  
 PUB. COUNTRY:       United States  
                       Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE:           English  
 FILE SEGMENT:       Priority Journals  
 OTHER SOURCE:       GENBANK-Z35491  
 ENTRY MONTH:        199601  
 ENTRY DATE:         Entered STN: 19960219  
                       Last Updated on STN: 19960219  
                       Entered Medline: 19960124  
 AB   In search of **proteins** which interact with activated  
       **steroid hormone receptors**, we screened a human  
       liver lambda gt11 expression library with the glucocorticoid  
       **receptor**. We identified and cloned a cDNA sequence of 1322 bp that  
       encodes a **protein** of 274 aa. This **protein** consists  
       predominantly of hydrophilic amino acids and contains a putative  
       bipartite



nuclear localization signal. The in vitro translated **receptor**-associating **protein** runs in SDS/polyacrylamide gels with an apparent molecular mass of 46 kDa. By use of the bacterially expressed **fusion protein** with glutathione S-transferase we have found that interaction is not limited to the glucocorticoid **receptor** but included other nuclear **receptors**--most notably, the estrogen and **thyroid receptors**. Binding also occurs with the glucocorticoid **receptor** complexed with the antiglucocorticoid RU 38486, with the estrogen **receptor** complexed with the antiestrogen 4-hydroxytamoxifen or ICI 164,384, and even with **receptors** not complexed with ligand. Association with **steroid hormone receptors** depends on prior **receptor** activation--i.e., release from heat shock **proteins**. The sequence identified here appears to be a general partner **protein** for nuclear **hormone receptors**, with the gene being expressed in a variety of mammalian tissues.

L4 ANSWER 11 OF 16 MEDLINE DUPLICATE 6  
 ACCESSION NUMBER: 95349617 MEDLINE  
 DOCUMENT NUMBER: 95349617 PubMed ID: 7623841  
 TITLE: A 10-amino-acid sequence in the N-terminal A/B domain of thyroid hormone receptor alpha is essential for transcriptional activation and interaction with the general transcription factor TFIIB.  
 AUTHOR: Hadzic E; Desai-Yajnik V; Helmer E; Guo S; Wu S; Koudinova N; Casanova J; Raaka B M; Samuels H H  
 CORPORATE SOURCE: Department of Cell Biology, New York University Medical Center, New York 10016, USA.  
 CONTRACT NUMBER: 5T35DK07421 (NIDDK)  
 DK16636 (NIDDK)  
 GM07238 (NIGMS)  
 SOURCE: +  
 MOLECULAR AND CELLULAR BIOLOGY, (1995 Aug) 15 (8) 4507-17.  
 Journal code: NGY; 8109087. ISSN: 0270-7306.  
 PUB. COUNTRY: United States  
 Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199508  
 ENTRY DATE: Entered STN: 19950911  
 Last Updated on STN: 19950911  
 Entered Medline: 19950829  
 AB The effects of the **thyroid hormone** (3,5,3'-triiodo-L-thyronine [T3]) on gene transcription are mediated by nuclear T3 **receptors** (T3Rs). alpha- and beta-isoform T3Rs (T3R alpha and -beta) are expressed from different genes and are members of a superfamily of ligand-dependent transcription factors that also includes the **receptors** for **steroid hormones**, vitamin D, and retinoids. Although T3 activates transcription by mediating a conformational change in the C-terminal approximately 220-amino-acid ligand-binding domain. . . of the 50-amino-acid N-terminal A/B domain of chicken T3R alpha (cT3R alpha) decreases T3-dependent stimulation of genes regulated by native **thyroid hormone** response elements about 10- to 20-fold. The requirement of the A/B region for transcriptional activation was mapped to amino acids. . . amino acids. The A/B region of cT3R alpha is not required for T3 binding or for DNA binding of the **receptor** as a heterodimer with retinoid X **receptor**. In vitro binding studies indicate that the N-terminal region of cT3R alpha interacts efficiently with TFIIB and that this interaction. . . in the binding of cT3R alpha includes an amphipathic alpha helix contained within residues 178 to 201. Analysis using a **fusion protein** containing the DNA-binding domain of GAL4 and the entire A/B region of cT3R alpha suggests that this region does not. . .

L4 ANSWER 12 OF 16 CAPLUS COPYRIGHT 2001 ACS  
 ACCESSION NUMBER: 1994:316754 CAPLUS  
 DOCUMENT NUMBER: 120:316754  
 TITLE: A cDNA for a novel member of the steroid/thyroid hormone receptor family  
 INVENTOR(S): Kroczek, Richard; Mages, Hans Werner  
 PATENT ASSIGNEE(S): Germany  
 SOURCE: PCT Int. Appl., 33 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9404675	A2	19940303	WO 1993-EP2223	19930819
WO 9404675	A3	19941208		
W: AU, BB, BG, BR, CA, CZ, FI, HU, JP, KP, KR, KZ, LK, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, US, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			EP 1992-114134	19920819

IT **Receptors**

RL: BIOL (Biological study)  
 (TR (**thyroid/steroid hormone receptor**), nuclear **receptor** of T-cells (NOT), cDNA for, cloning and expression of, manuf. of **fusion proteins** in relation to)

L4 ANSWER 13 OF 16 MEDLINE DUPLICATE 7  
 ACCESSION NUMBER: 95057285 MEDLINE  
 DOCUMENT NUMBER: 95057285 PubMed ID: 7967725  
 TITLE: The retinoid receptors.  
 AUTHOR: Pemrick S M; Lucas D A; Grippo J F  
 CORPORATE SOURCE: Department of Toxicology and Pathology, Hoffman-La Roche, Nutley, NJ 07110.  
 SOURCE: LEUKEMIA, (1994 Nov) 8 (11) 1797-806. Ref: 114  
 Journal code: LEU; 8704895. ISSN: 0887-6924.  
 PUB. COUNTRY: ENGLAND: United Kingdom  
 Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, ACADEMIC)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199412  
 ENTRY DATE: Entered STN: 19950110  
 Last Updated on STN: 19970203  
 Entered Medline: 19941213

AB The retinoid **receptors** belong to a large superfamily of ligand-inducible transcription factors that include the **steroid**, vitamin D and **thyroid hormone receptors**, the peroxisome proliferator-activated **receptor**, the insect edysteroid **receptor**, and a number of orphan **receptors** whose ligands are unknown. All nuclear **receptors** have several well-characterized structural domains, including a conserved DNA-binding domain, and a ligand binding domain at the carboxyl terminus of the **receptor**. The RAR and RXR classes of nuclear retinoic acid **receptors** are each composed of alpha, beta and gamma subtypes with more than one isoform for each **receptor** subtype. Data from many investigators suggest there are RAR- and RXR-dependent gene pathways, and that the individual **receptor** subtypes may control distinct gene expression patterns. In addition, RXR has been found to heterodimerize with other nuclear **receptors** to form active transcriptional complexes, which influence the activity of a variety of gene pathways important in growth and differentiation.. . . In the latter case,

retinoid resistance has been associated with a mutation in the RAR gene which transcribes a RAR **receptor** truncated at the C-terminal end. These mutated RAR **receptors** exhibit a reduced affinity for retinoic acid while retaining the ability to bind to a retinoic acid response element on DNA. As a result, these mutant **receptors** exhibit dominant-negative activity by binding to the DNA without activating transcription and by competing with other **receptors** for sites on the response element. In fact, dominant-negative activity

may

be very important in the development of many neoplastic. . . promyelocytic leukemia (APL), where a t(15;17) chromosomal translocation fuses the PML gene to the RAR gene, to produce a PML-RAR **fusion protein** in large excess in the cell. However, retinoid resistance in the patient is most probably the result of pharmacokinetic problems,.

L4 ANSWER 14 OF 16

MEDLINE

DUPLICATE 8

ACCESSION NUMBER: 95106823 MEDLINE

DOCUMENT NUMBER: 95106823 PubMed ID: 7808017

TITLE: The retinoid receptors.

AUTHOR: Pemrick S M; Lucas D A; Grippo J F

CORPORATE SOURCE: Department of Toxicology and Pathology, Hoffmann-La Roche, Nutley, NJ 07110.

SOURCE: LEUKEMIA, (1994) 8 Suppl 3 S1-10. Ref: 114

Journal code: LEU; 8704895. ISSN: 0887-6924.

PUB. COUNTRY: ENGLAND: United Kingdom

Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, ACADEMIC)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199502

ENTRY DATE: Entered STN: 19950215

Last Updated on STN: 19950215

Entered Medline: 19950202

AB The retinoid **receptors** belong to a large superfamily of ligand-inducible transcription factors that include the **steroid**, vitamin D and **thyroid hormone receptors**, the peroxisome proliferator-activated **receptor**, the insect edysteroid **receptor**, and a number of orphan **receptors** whose ligands are unknown. All nuclear **receptors** have several well-characterized structural domains, including a conserved DNA-binding domain, and a ligand binding domain at the carboxyl terminus of the **receptor**. The RAR and RXR classes of nuclear retinoic acid **receptors** are each composed of alpha, beta and gamma subtypes with more than one isoform for each **receptor** subtype. Data from many investigators suggest there are RAR- and RXR-dependent gene pathways, and that the individual **receptor** subtypes may control distinct gene expression patterns. In addition, RXR has been found to heterodimerize with other nuclear **receptors** to form active transcriptional complexes, which influence the activity of a variety of gene pathways important in growth and differentiation. . . . In the latter case, retinoid resistance has been associated with a mutation in the RAR gene which transcribes a RAR **receptor** truncated at the C-terminal end. These mutated RAR **receptors** exhibit a reduced affinity for retinoic acid while retaining the ability to bind to a retinoic acid response element on DNA. As a result, these mutant **receptors** exhibit dominant-negative activity by binding to the DNA without activating transcription and by competing with other **receptors** for sites on the response element. In fact, dominant-negative activity

may

be very important in the development of many neoplastic. . . . promyelocytic leukemia (APL), where a t(15;17) chromosomal translocation fuses the PML gene to the RAR gene, to produce a PML-RAR **fusion protein** in large excess in the cell. However, retinoid resistance in the patient is most probably the result of pharmacokinetic problems,.

L4 ANSWER 15 OF 16 MEDLINE DUPLICATE 9  
 ACCESSION NUMBER: 93275337 MEDLINE  
 DOCUMENT NUMBER: 93275337 PubMed ID: 8389001  
 TITLE: The retinoic acid receptor-beta 2 contains two separate cell-specific transactivation domains, at the N-terminus and in the ligand-binding domain.  
 AUTHOR: Folkers G E; van der Leede B J; van der Saag P T  
 CORPORATE SOURCE: Hubrecht Laboratory, Netherlands Institute for Developmental Biology, Utrecht.  
 SOURCE: MOLECULAR ENDOCRINOLOGY, (1993 Apr) 7 (4) 616-27.  
 Journal code: NGZ; 8801431. ISSN: 0888-8809.  
 PUB. COUNTRY: United States  
 Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199306  
 ENTRY DATE: Entered STN: 19930716  
 Last Updated on STN: 19980206  
 Entered Medline: 19930629

AB In contrast to other members of the **steroid/thyroid hormone** superfamily, not much is known about the regions involved in transactivation of the **receptors** for retinoic acid. To determine the transactivation function of RARs, **fusion proteins** between the DNA-binding domain of the yeast transcription factor GAL4 and retinoic acid **receptor**-alpha (RAR alpha) or RAR beta were made. Transfection of these constructs resulted in RA-induced activation of a GAL4-responsive element-containing promoter. . . . function. Internal deletions in the ligand-binding domain in both GAL-RAR beta and RAR beta expression constructs resulted in a nonfunctional **receptor**, indicating that the complete ligand-binding domain is required for its transactivation function. Furthermore, we have shown that the contribution of. . .

L4 ANSWER 16 OF 16 MEDLINE DUPLICATE 10  
 ACCESSION NUMBER: 91061753 MEDLINE  
 DOCUMENT NUMBER: 91061753 PubMed ID: 2247065  
 TITLE: The NGFI-B protein, an inducible member of the thyroid/steroid receptor family, is rapidly modified posttranslationally.  
 AUTHOR: Fahrner T J; Carroll S L; Milbrandt J  
 CORPORATE SOURCE: Department of Pathology, Washington University School of Medicine, St. Louis, Missouri 63110.  
 CONTRACT NUMBER: NS01018 (NINDS)  
 PO1 CA49712 (NCI)  
 SOURCE: MOLECULAR AND CELLULAR BIOLOGY, (1990 Dec) 10 (12) 6454-9.  
 Journal code: NGY; 8109087. ISSN: 0270-7306.  
 PUB. COUNTRY: United States  
 Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199101  
 ENTRY DATE: Entered STN: 19910222  
 Last Updated on STN: 20000303  
 Entered Medline: 19910108

AB . . . NGFI-B gene is rapidly activated by a variety of stimuli that induce cells to differentiate or proliferate. It encodes a **protein** with a predicted molecular mass of congruent to 61 kDa and is a member of the **thyroid/steroid hormone receptor** gene family. To characterize this **protein**, monoclonal antibodies were raised against a bacterial TrpE-NGFI-B **fusion protein** that encompasses a large portion (Glu-410 to Leu-527) of the carboxy-terminal domain of NGFI-B. These antibodies detected a **protein** that was rapidly synthesized in response to nerve growth

factor (NGF) and migrated as a broad band on sodium dodecyl. . . that  
ranged from 63 to 88 kDa. Pulse-chase analysis demonstrated that NGFI-B  
was rapidly posttranslationally modified and was a short-lived  
**protein**. NGFI-B was found to be a phosphorylated **protein**  
, and the multiple NGFI-B species coalesced into a single, more rapidly  
migrating species when treated with alkaline phosphatase. PC12 cells. .  
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